IN THE CLAIMS:

1.-9. (cancelled)

10. (currently amended) A dishwasher comprising:

a wash chamber;

a water supply line in flow communication with said wash chamber, said water supply line having a first diameter;

a valve configured to deliver water from said water supply line into said wash chamber;

a turbine ratemeter in flow communication with said valve, said turbine ratemeter configured to meter ~~a quantity of~~ water flow through said valve and generate a signal comprising a plurality of square wave pulses representing [[the]] a quantity of water flow through said valve, each pulse of said plurality of square wave pulses representing a ~~predetermined~~ unit quantity of water;

a restrictor tube in flow communication with said turbine ratemeter, said restrictor tube having a second diameter smaller than said first diameter; and

a controller in signal communication with said turbine ratemeter, said controller configured to:

open said valve;

receive the generated signal from said turbine ratemeter; [[and]]

close said valve when a predetermined number of pulses have been received from said turbine ratemeter such that a predetermined quantity of water is supplied through said valve; and

vary the quantity of water for a next use of the dishwasher based on at least one prior water usage.

11. (previously presented) A dishwasher in accordance with Claim 10 further comprising a pump motor configured to pump liquid into said wash chamber, said controller coupled to said motor, said controller configured to detect a cavitation of said pump and use said ratemeter to deliver a predetermined amount of water upon the detection.

12. (currently amended) A dishwasher in accordance with Claim 11 wherein said controller is configured to detect a cavitation by sensing a current to said motor.

13. (currently amended) A dishwasher in accordance with Claim 12 wherein said is controller configured to detect a cavitation by sensing a phase of an alternating current to said motor.

14. (currently amended) A dishwasher comprising:

a wash chamber;

a water supply line in flow communication with said wash chamber, said water supply line having a first diameter;

a valve and a turbine ratemeter positioned to deliver a metered amount of water into said wash chamber, said turbine ratemeter generating square wave pulses each representing a predetermined quantity of water;

a restrictor tube in flow communication with said turbine ratemeter, said restrictor tube having a second diameter smaller than said first diameter; and

a controller coupled to said valve and said turbine ratemeter, said controller configured to:

deliver a first amount of water to the dishwasher for a first dishwashing cycle;

monitor at least one operation of the dishwasher during the first dishwashing cycle to detect an underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the first dishwashing cycle;

measure a first total amount of additional water by counting a first plurality of square wave pulses generated by said turbine ratemeter during addition of the additional water for the first dishwashing cycle;

retain the first total amount of additional water added during the first dishwashing cycle;

~~deliver the first amount of water to the dishwasher for a second dishwashing cycle subsequent the first dishwashing cycle;~~

~~monitor at least one operation of the dishwasher during the second dishwashing cycle to detect an underfill condition;~~

~~add additional water to the dishwasher upon detecting at least one underfill condition during the second dishwasher cycle;~~

~~measure a second total amount of additional water by counting a second plurality of square wave pulses generated by said turbine ratemeter during addition of the additional water for the second dishwasher cycle;~~

~~retain the second total amount of additional water added during the second dishwashing cycle;~~ and

determine a second amount of water to deliver to the dishwasher for a ~~third dishwashing~~ cycle subsequent ~~the second cycle~~ the at least one underfill condition ~~using the retained first total amount of additional water and the retained second total amount of additional water~~ based on the first amount of water and the first total amount of additional water.

15. (original) A dishwasher in accordance with Claim 14 further comprising a pump motor coupled to said controller, said controller further configured to monitor said pump to detect a pump cavitation.

16. (currently amended) A dishwasher in accordance with Claim 15, wherein said controller is further configured to deliver a predetermined amount of water to said wash chamber upon a detecting the pump cavitation.

17. (currently amended) A dishwasher in accordance with Claim 15, wherein said controller is further configured to provide an indication upon detecting the pump cavitation.

18. (currently amended) A dishwasher in accordance with Claim 17, wherein said controller is further configured to provide a visual indication upon detecting the pump cavitation.

19. (currently amended) A dishwasher in accordance with Claim 17, wherein said controller is further configured to provide an audible indication upon detecting the pump cavitation.

20. (currently amended) A dishwasher in accordance with Claim 14, wherein said controller is further configured to:

after a power loss, deliver the first amount of water to the dishwasher for [[a]] the first dishwashing cycle subsequent the power loss;

monitor at least one operation of the dishwasher during the first dishwashing cycle subsequent the power loss to detect [[an]] the underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the first dishwashing cycle subsequent the power loss;

retain [[a]] the first total amount of additional water added during the first dishwashing cycle subsequent the power loss;

~~deliver the first amount of water to the dishwasher for a second dishwashing cycle subsequent the first cycle subsequent the power loss;~~

~~monitor at least one operation of the dishwasher during the second dishwashing cycle subsequent the power loss to detect an underfill condition;~~

~~add additional water to the dishwasher upon detecting at least one underfill condition during the second dishwasher cycle subsequent the power loss;~~

~~retain a second total amount of additional water added during the second dishwashing cycle subsequent the power loss;~~ and

~~determine a~~ vary the second amount of water to deliver to the dishwasher for a ~~third dishwashing~~ cycle subsequent the ~~second~~ first dishwashing cycle subsequent the power loss ~~using~~ based on the retained first total amount of additional water added and the ~~retained second total amount of additional water added~~ first amount of water.